

# THE AMERICAN MIDLAND NATURALIST

Founded by J. A. Nieuwland, C.S.C.

Editor

Robert P. McIntosh

Thomas L. Beiting, Denton, Texas	Ichthyology
Harald E. Esch, Notre Dame, Indiana	Animal Behavior
William F. Font, Hammond, Louisiana	Parasitology
Christopher P. Dunn, Argonne, Illinois	Vegetation Ecology
Diane Essex-Sorlie, Urbana, Illinois	Biological Statistics
Stephen C. Trombulak, Middlebury, Vermont	Mammalogy
Richard J. Jensen, Notre Dame, Indiana	Plant Systematics
C. Ray Chandler, Hattiesburg, Mississippi	Ornithology
Stephen H. Jenkins, Reno, Nevada	Animal Ecology
Ann K. Sakai, Irvine, California	Plant Population Ecology
Alan & Barbara Savitzky, Norfolk, Virginia	Herpetology
Carl von Ende, DeKalb, Illinois	Limnology and Hydrobiology
Anthony Joern, Lincoln, Nebraska	Invertebrate Zoology
Nancy E. Stamp, Binghamton, New York	Entomology
Stanley D. Smith, Las Vegas, Nevada	Plant Physiology

Vol. 130, 1993

(July, October)

Dates of Publication

No. 1 July 30 1993

No. 2 October 26 1993

PUBLISHED BY THE UNIVERSITY OF NOTRE DAME

NOTRE DAME, INDIANA

## CONTENTS

No. 1, July, 1993

Influence of Topography on Stand Composition in a Midwestern Ravine Forest .....	Renee L. Thomas and Roger G. Anderson	1
Composition, Biomass and Nutrient Distribution in Mature Northern Hardwood and Boreal Forest Stands, Michigan .....	Darcy R. Rutkowski and Robert Stottlemeyer	13
Oak Tree Effects on Soil and Herbaceous Vegetation in Savannas and Pastures in Wisconsin .....	Leonora J. Ko and Peter B. Reich	31
Distribution of Seven Native and Two Exotic Plants in a Tallgrass Prairie in Southeastern Wisconsin: The Importance of Human Disturbance .....	Ingrid M. Parker, Shoshana K. Mertens and Douglas W. Schemske	43
The Twinning of Follicles by Common Milkweed ( <i>Asclepias syriaca</i> ) .....	Douglass H. Morse	56
Effects of Invasion by <i>Lonicera tatarica</i> L. on Herbs and Tree Seedlings in Four New England Forests .....	Kerry D. Woods	62
Effects of Variable Moisture Availability on Seed Germination in Three Populations of <i>Larrea tridentata</i> .....	Kathleen P. McGee and Diane L. Marshall	75
Changing Carbon Chemistry of Buried Creosote Bush Litter during Decomposition in the Northern Chihuahuan Desert .....	Daryl L. Moorhead and James F. Reynolds	83
Physiological Comparisons of Old-field and Coal-mine-spoil Populations of <i>Andropogon virginicus</i> L. (Broomsedge) .....	James E. Nellesen and Irwin A. Ungar	90
Standing Crop, Biomass Allocation Patterns and Soil-plant Water Relations in <i>Symphoricarpos occidentalis</i> Hook. Following Autumn or Spring Burning .....	J. T. Romo, P. L. Grilz, R. E. Redmann and E. A. Driver	106
Influence of Soil Temperature on Root Competition in Seedlings of <i>Acer rubrum</i> , <i>Liquidambar styraciflua</i> and <i>Sapium sebiferum</i> .....	Robert H. Jones	116
Response of Big Bluestem ( <i>Andropogon gerardii</i> Vitman) to Timing of Spring Burning .....	T. L. Benning and Thomas B. Bragg	127
Qualitative versus Quantitative Sampling to Evaluate Population and Community Characteristics at a Large-river Mussel Bed .....	Andrew C. Miller and Barry S. Payne	133
The Effect of Larval Brooding on the Respiratory Physiology of the Freshwater Unionid Mussel <i>Pyganodon cataracta</i> .....	Richard A. Tankersley and Ronald V. Dimock, Jr.	146
A Potential Nutritional Basis for Resource Partitioning by Desert Rodents .....	Stephen H. Jenkins and Rhoda Ascanio	164
Acorn Preferences and Habitat Use in Eastern Chipmunks .....	Sanjay Pyare, Julie A. Kent, Diane L. Noxon and Michael T. Murphy	173
Substrate Choice and Predation Risk in Newly Metamorphosed American Toads <i>Bufo americanus</i> : An Experimental Analysis .....	Joel T. Heinen	184
Effects of Microclimate and Plant Characteristics on the Distribution of a Willow Flea Beetle, <i>Altica subplicata</i> .....	Catherine E. Bach	193

## CONTENTS

No. 2, October, 1993

Replacement of <i>Cakile edentula</i> by <i>C. maritima</i> in the Strand Habitat of California .....	Robert S. Boyd and Michael G. Barbour	209
Tannins and Partial Consumption of Acorns: Implications for Dispersal of Oaks by Seed Predators .....	Michael A. Steele, Travis Knowles, Kenneth Bridle and Ellen L. Simms	229
Effects of Pollen Vector and Plant Geometry on Floral Sex Ratio in Monoecious Plants .....	Ann M. Bickel and D. Carl Freeman	239
Establishment of Native Grass Seedlings along a Topographic/Moisture Gradient in the Nebraska Sandhills .....	Martha A. Potvin	248
Impacts of Burning on Primary Productivity of <i>Festuca</i> and <i>Stipa-Agropyron</i> Grasslands in Central Saskatchewan .....	R. E. Redmann, J. T. Romo, B. Pylypec and E. A. Driver	262
Establishment of <i>Populus deltoides</i> under Simulated Alluvial Groundwater Declines .....	Charles A. Segelquist, Michael L. Scott and Gregor T. Auble	274
The Effects of Prescribed Burning on Nutrient Availability and Primary Production in Sandplain Grasslands .....	Judith L. Dudley and Kate Lajtha	286
Winter Forages and Diets of Elk in Old-growth and Regenerating Coniferous Forests in Western Washington .....	Kurt J. Jenkins and Edward E. Starkey	299
Temporal Variation in Growth Rate and Age at Maturity of Male Painted Turtles, <i>Chrysemys picta</i> .....	Nat B. Frazer, Judith L. Greene and J. Whitfield Gibbons	314
Opportunistic Foraging of Eastern Woodrats ( <i>Neotoma floridana</i> ) in Manipulated Habitats .....	Scott T. McMurry, Robert L. Lochmiller, James F. Boggs, David M. Leslie, Jr. and David M. Engle	325
An Exact Test and Normal Approximation for Centrifugal and Centripetal Patterns in Line and Belt Transects in Ecological Studies .....	Arthur W. Ghent	338
The Influence of <i>Lepidostoma</i> (Trichoptera: Lepidostomatidae) on Recovery of Leaf-litter Processing in Disturbed Headwater Streams .....	Matt R. Whiles, J. Bruce Wallace and Keun Chung	356

Characterization of Prairie Mole Cricket Chorus Sites in Oklahoma .....	Caryn C. Vaughn, Susan M. Glenn and Ian H. Butler	364
Life History Variation in the Temporary Pool Snail, <i>Fossaria sonomaensis</i> , in the Northern Sacramento Valley .....	Sean P. Gallagher	372
New Occurrences of <i>Eurytemora affinis</i> and <i>Epischura fluviatilis</i> , Freshwater Calanoid Copepod Species of the Family Temoridae, in South Carolina .....	Adrienne E. DeBiase and Barbara E. Taylor	386
Notes and Discussion		
Inheritance of Albinism in the Meadow Vole ( <i>Microtus pennsylvanicus</i> ) .....	Susan R. Brewer, Michael F. Lucas, John A. Mugnano, John D. Peles and Gary W. Barrett	393
Differences in Trapping and Killing Efficiency of Sherman, Victor and Museum Special Traps for House Mice .....	Lee C. Drickamer and David G. Mikesic	397
An Improved Measure of Angular Dispersion in Plant Neighborhoods .....	Klaus J. Puettmann, Dan Rhode, Bruce D. Maxwell and John Lindquist	401
A Maternity Roost of the Endangered Indiana Bat ( <i>Myotis sodalis</i> ) in an Unshaded, Hollow, Sycamore Tree ( <i>Platanus occidentalis</i> ) .....	Allen Kurta,	405
Inter-island Movements of Rice Rats ( <i>Oryzomys palustris</i> ) .....	Joseph Kath, Eric L. Smith, Rodney Foster, Michael W. Orick and Ronald Ross	408
A New Device for Sampling Macroinvertebrates from Woody Debris (Snags) in Nearshore Areas of Aquatic Systems .....	Elizabeth A. Forsy and Raymond D. Dueser	413
Author Index, Volume 130 .....	Michael D. DeLong, James H. Thorp and Kim H. Haag	419
Subject Index, Volume 130 .....		420
Contents, Volume 130 .....		i